

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 15-19 are pending in the present application. Claims 15, 17 and 19 are amended by the present amendment. Support for additions to the claims can be found in the disclosure as originally filed, at least on page 29. Thus, no new matter is added.

In the outstanding Office Action, Claims 15-19 were rejected under 35 U.S.C. §103(a) as unpatentable over Kerfoot et al. (U.S. Patent 6,704,511, hereinafter Kerfoot) in view of Ryu et al. (U.S. Patent No. 6,330,384, hereinafter Ryu), Coa (U.S. Patent No. 6,731,877) and Hamada (U.S. Pat. No. 5,703,711).

Addressing now the rejection of Claim 15 under 35 U.S.C. §103(a) as unpatentable over Kerfoot, Ryu, Coa, and Hamada, Applicants respectfully traverse this assertion.

Claim 15 recites, in part,

a dummy optical signal source device configured to generate the non-modulated spectrum slice optical signal, including:

...at least a first and second output optical amplifier, each having an input connected to an output of a respective one of the dummy signal optical multiplexers, and having respective outputs, and

a dummy signal optical multiplexer connecting the respective outputs of the output optical amplifiers to the optical multiplexer and configured to modify a gain of at least one non-modulated spectrum slice optical signal component in order to maintain a predetermined overall gain profile of the non-modulated spectrum slice optical signal components in response to no signal being available for amplification for one of the non-modulated spectrum slice optical signal components.

Claim 17 recites a corresponding method claim and Claim 19 recites a corresponding means claim.

Kerfoot describes a wavelength division multiplex optical signal including a WDM combiner to provide a source signal, at least one transmitter coupled to an input of the WDM combiner, a broadband noise source, and a filter coupled between the broadband noise source and another input of the WDM combiner. In one embodiment, the filter is an optical notch filter. In another embodiment, the filter includes a WDM demultiplexer coupled through plural filters to provide a plurality of noise signals, and a WDM multiplexer coupled through at least one of the plural filters to respective noise signals.

Ryu describes an optical system having a light source, couplers and amplifiers. Fig. 3 of Ryu shows a signal input terminal terminated without reflection.

Cao describes connecting an optical amplifier 24a to a multiplexer 28 via a dispersion compensating element 26a.

However, Kerfoot, Ryu and Coa do not describe or suggest a dummy signal optical multiplexer connecting the respective outputs of the output optical amplifiers to the optical multiplexer and configured to modify a gain of at least one non-modulated spectrum slice optical signal component in order to maintain a predetermined overall gain profile of the non-modulated spectrum slice optical signal components in response to no signal being available for amplification for one of the non-modulated spectrum slice optical signal components, as is recited in Claim 15.

Nevertheless, the outstanding Action cites Hamada as curing the deficiencies of Kerfoot, Ryu and Coa with regard to the claimed invention.

Hamada describes an optical amplifier that can amplify a signal. However, Hamada never describes a dummy signal optical multiplexer connecting the respective outputs of the output optical amplifiers to the optical multiplexer and configured to modify a gain of at least one non-modulated spectrum slice optical signal component in order to maintain a predetermined overall gain profile of the non-modulated spectrum slice optical signal

components in response to no signal being available for amplification for one of the non-modulated spectrum slice optical signal components, as is recited in Claim 15.

In other words, Hamada never states that the amplification is modified in response no signal being available for amplification for one of the non-modulated spectrum slice optical signal components.

The outstanding Action states on page 8 that “the argued terminology is not reflected in the claim. For example, the claim does not cite the “detail regarding what triggers” the amplifier.” In response, Applicants have amended the independent claims to clarify that the dummy signal optical multiplexer is configured to modify a gain of at least one non-modulated spectrum slice optical signal component ***in response to no signal being available for amplification for one of the non-modulated spectrum slice optical signal components.***

This feature is not described in Hamada which never describes what the amplification is in response to or what “triggers” the amplification.

Thus, while the claimed invention describes that the gain of at least one non-modulated spectrum slice optical signal component is modified in response to no signal being available for amplification for one of the non-modulated spectrum slice optical signal components, Hamada describes no such feature.

Accordingly, Applicants respectfully submit that Claims 15, 17 and 19, and claims depending therefrom, respectively, patentably distinguish over Kerfoot, Ryu, Cao and Hamada considered individually or in combination.

Consequently, in view of the present amendment and in light of the previous discussion, Applicants respectfully submit that the present application is in condition for allowance and respectfully request an early and favorable action to that effect.

Respectfully submitted,

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